AMENDMENTS TO THE CLAIMS

73. (CURRENTLY AMENDED) A method for improving a swim fin, comprising:

(a) providing a foot attachment member;

(b) providing an active portion connected to said foot attachment member and forming a substantially forward extension of said foot attachment member, said active portion having a root portion adjacent to said foot attachment member and a blade free end portion remote from said root portion and said foot attachment member, said active portion having a predetermined longitudinal dimension between said root portion and said blade free end portion, said active portion having a longitudinal midpoint between said root portion and said free end portion, said active portion having a first half portion between said root portion and said midpoint, said active portion having a three quarter position that is located midway between said midpoint and said free end portion; ~~and~~

(c) providing a hinging region disposed within said first half of said active portion, said hinging region being a region of increased flexibility within said swim fin, said active portion having a pivoting blade portion forward of said hinging region, said hinging region being arranged to permit said pivoting blade portion to pivot around a transverse axis to a deflection of at least 10 degrees from a neutral position to a deflected position under a relatively light load condition such as created during a relatively light kicking stroke used to achieve a relatively slow swimming speed, said hinging region having a tension surface portion capable of experiencing an elongation range of at least 3% during said deflection, said tension surface portion being made with an elastic material capable of permitting said tension surface to experience an elastic recovery from said elongation range at the end of a kicking stroke, said elastic recovery being sufficient to snap said pivoting blade portion back from said deflected position toward said neutral position at the end of a kicking stroke ; and

(d) providing said active portion with sufficient transverse flexibility to bow between said outer side edges from an unbowed position at rest to a bowed position during use to form a bowed three quarter position concave scooped channel along said attacking surface at said three quarter position, said bowed three quarter position concave scooped channel having a predetermined three quarter position depth of scoop between

said unbowed position and said bowed position that is at least 5% of said predetermined transverse dimension at said three quarter position, said active portion having sufficient longitudinal flexibility along said predetermined longitudinal dimension to permit said active portion to form a substantially S-shaped wave along said predetermined longitudinal dimension during an inversion phase of a reciprocating kick stroke cycle.

74. (PREVIOUSLY PRESENTED) The method of Claim 73 wherein said hinging region is a region of reduced cross section.

75. (PREVIOUSLY PRESENTED) The method of Claim 73 wherein said hinging region is a region of reduced transverse dimension.

76. (PREVIOUSLY PRESENTED) The method of Claim 73 wherein said hinging region is a region of reduced vertical thickness.

77. (PREVIOUSLY PRESENTED) The method of Claim 73 wherein said deflection is not less than 15 degrees.

78. (PREVIOUSLY PRESENTED) The method of Claim 73 wherein said deflection is not less than 20 degrees.

79. (PREVIOUSLY PRESENTED) The method of Claim 73 wherein said deflection is not less than 30 degrees.

80. (PREVIOUSLY PRESENTED) The method of Claim 73 wherein said deflection is not less than 20 degrees and not substantially greater than 50 degrees.

81. (PREVIOUSLY PRESENTED) The method of Claim 73 wherein said deflection is not less than 30 degrees and not substantially greater than 50 degrees.

82. (PREVIOUSLY PRESENTED) The method of Claim 73 wherein said

elongation range is not less than 5% during said deflection.

83. (PREVIOUSLY PRESENTED) The method of Claim 73 wherein said elongation range is not less than 7% during said deflection.

84. (PREVIOUSLY PRESENTED) The method of Claim 73 wherein said elongation range is not less than 10% during said deflection.

85. (PREVIOUSLY PRESENTED) The method of Claim 73 wherein said elongation range is not less than 15% during said deflection.

86. (PREVIOUSLY PRESENTED) The method of Claim 73 wherein said elongation range is not less than 5% during under a relatively high load condition such as created during a relatively hard kicking stroke used to achieve a relatively fast swimming speed.

87. (PREVIOUSLY PRESENTED) The method of Claim 73 wherein said elongation range is not less than 10% during under a relatively high load condition such as created during a relatively hard kicking stroke used to achieve a relatively fast swimming speed.

88. (PREVIOUSLY PRESENTED) The method of Claim 73 wherein said elongation range is not less than 15% during under a relatively high load condition such as created during a relatively hard kicking stroke used to achieve a relatively fast swimming speed.

89. (PREVIOUSLY PRESENTED) The method of Claim 73 wherein said elongation range is not less than 20% during under a relatively high load condition such as created during a relatively hard kicking stroke used to achieve a relatively fast swimming speed.

90. (PREVIOUSLY PRESENTED) The method of Claim 73 wherein said hinging region has a compression surface portion capable of experiencing a compression range of at least 1% during said deflection.

91. (PREVIOUSLY PRESENTED) The method of Claim 73 wherein said hinging region has a compression surface portion capable of experiencing a compression range of at least 3% during said deflection.

92. (PREVIOUSLY PRESENTED) The method of Claim 73 wherein said hinging region has a compression surface portion capable of experiencing a compression range of at least 5% during said deflection.

93. (PREVIOUSLY PRESENTED) The method of Claim 73 wherein said hinging region has a compression surface portion capable of experiencing a compression range of at least 7% during said deflection.

94. (PREVIOUSLY PRESENTED) The method of Claim 73 wherein said hinging region has a compression surface portion capable of experiencing a compression range of at least 10% during said deflection.

95. (PREVIOUSLY PRESENTED) The method of Claim 73 wherein said hinging region has a compression surface portion capable of experiencing a compression range of at least 3% under a relatively high load condition such as created during a relatively hard kicking stroke used to achieve a relatively fast swimming speed.

96. (PREVIOUSLY PRESENTED) The method of Claim 73 wherein said hinging region has a compression surface portion capable of experiencing a compression range of at least 5% under a relatively high load condition such as created during a relatively hard kicking stroke used to achieve a relatively fast swimming speed.

97. (PREVIOUSLY PRESENTED) The method of Claim 73 wherein said hinging region has a compression surface portion capable of experiencing a compression range of at least 10% under a relatively high load condition such as created during a relatively hard kicking stroke used to achieve a relatively fast swimming speed.

98. (PREVIOUSLY PRESENTED) The method of Claim 73 wherein said hinge region is formed by at least one cutout notch region within said active portion.

99. (PREVIOUSLY PRESENTED) The method of Claim 73 wherein said active portion has a compression surface portion relative to said deflection, said hinge region is formed by a curved tension surface cutout adjacent to said tension surface portion and a curved compression surface cutout adjacent to said compression surface portion.

100. (PREVIOUSLY PRESENTED) The method of Claim 73 wherein said active portion has a compression surface portion and said hinge region has a neutral bending surface, said hinging region is arranged to enable said neutral bending surface to shift toward said compression surface during in an amount sufficient to create a significant increase in bending resistance within said flexible rib region under a relatively high load condition such as created during a relatively hard kicking stroke used to achieve a relatively high swimming speed.

101. (PREVIOUSLY PRESENTED) The method of Claim 100 wherein said relatively high load condition creates a high load deflection, said increase in bending resistance is sufficient to permit the difference between said high load deflection and said deflection to be less than said deflection.

102. (PREVIOUSLY PRESENTED) The method of Claim 100 wherein said hinging region has a compression surface relative to said deflection, said hinging region having a compression surface cutout adjacent said compression surface, said increase in bending resistance being sufficient to prevent said compression surface notch from closing under said relatively high load condition.

103. (PREVIOUSLY PRESENTED) The method of Claim 73 wherein said hinging region is a region of increased bending.

104-106. (WITHDRAWN)

107. (PREVIOUSLY PRESENTED) The method of Claim 73 wherein said hinging region has a relatively short lengthwise dimension.

108. (PREVIOUSLY PRESENTED) The method of Claim 73 wherein said active portion includes an elongated rib member, said hinging region being a region of reduced transverse rib dimension within said elongated rib member.

109. (PREVIOUSLY PRESENTED) The method of Claim 73 wherein said active portion includes an elongated rib member, said hinging region being a region of increased rib flexibility within said elongated rib member.

110. (PREVIOUSLY PRESENTED) The method of Claim 109 wherein said region of increased rib flexibility is a region of reduced cross section within said elongated rib member.

111. (WITHDRAWN)

112. (CURRENTLY AMENDED) The method of Claim 73 wherein said ~~active portion has a predetermined length, said active portion is arranged to have sufficient flexibility along said predetermined length to permit said active portion to form a~~ substantially S-shaped wave ~~along said predetermined length during an inversion portion of a reciprocating kicking stroke cycle~~ is arranged to form a substantially S-shaped standing wave during relatively small amplitude reciprocating strokes.

113. (CURRENTLY AMENDED) The method of Claim 112 wherein said longitudinal flexibility is arranged to be sufficiently flexible to permit said S-shaped standing wave to form with significantly low levels of kicking resistance ~~73 wherein said pivoting blade portion has an attacking surface and a lee surface relative to relative motion between said pivoting blade portion and the surrounding water, said pivoting blade portion having outer side edges and a predetermined transverse dimension between said outer side edges, said pivoting blade portion having sufficient flexibility to permit said pivoting blade portion experience bowing between~~

~~said outer side edges from an unbowed position at rest to a bowed position under said relatively light load condition, said bowing sufficient to form a three quarter position longitudinal scoop shaped contour along said attacking surface of said active portion adjacent to said three quarter position, said three quarter position longitudinal scoop shaped contour having a predetermined depth of scoop adjacent said three quarter position which is at least 5% of said predetermined transverse dimension of said active portion~~.

114. (PREVIOUSLY PRESENTED) The method of Claim 113 wherein said hinging region includes a region of reduced cross section.

115. (PREVIOUSLY PRESENTED) The method of Claim 113 wherein said hinging region includes a region of reduced transverse dimension.

116. (PREVIOUSLY PRESENTED) The method of Claim 113 wherein said hinging region includes a region of reduced vertical thickness.

117. (PREVIOUSLY PRESENTED) The method of Claim 113 wherein said deflection is not less than 15 degrees.

118. (PREVIOUSLY PRESENTED) The method of Claim 113 wherein said deflection is not less than 20 degrees.

119. (PREVIOUSLY PRESENTED) The method of Claim 113 wherein said deflection is not less than 30 degrees.

120. (PREVIOUSLY PRESENTED) The method of Claim 113 wherein said deflection is not less than 20 degrees and not substantially greater than 50 degrees.

121. (PREVIOUSLY PRESENTED) The method of Claim 113 wherein said deflection is not less than 30 degrees and not substantially greater than 50 degrees.

122. (PREVIOUSLY PRESENTED) The method of Claim 113 wherein said elongation range is not less than 5% during said deflection.

123. (PREVIOUSLY PRESENTED) The method of Claim 113 wherein said elongation range is not less than 7% during said deflection.

124. (PREVIOUSLY PRESENTED) The method of Claim 113 wherein said elongation range is not less than 10% during said deflection.

125. (PREVIOUSLY PRESENTED) The method of Claim 113 wherein said elongation range is not less than 15% during said deflection.

126. (PREVIOUSLY PRESENTED) The method of Claim 113 wherein said elongation range is not less than 5% during under a relatively high load condition such as created during a relatively hard kicking stroke used to achieve a relatively fast swimming speed.

127. (PREVIOUSLY PRESENTED) The method of Claim 113 wherein said elongation range is not less than 10% during under a relatively high load condition such as created during a relatively hard kicking stroke used to achieve a relatively fast swimming speed.

128. (PREVIOUSLY PRESENTED) The method of Claim 113 wherein said elongation range is not less than 15% during under a relatively high load condition such as created during a relatively hard kicking stroke used to achieve a relatively fast swimming speed.

129. (PREVIOUSLY PRESENTED) The method of Claim 113 wherein said elongation range is not less than 20% during under a relatively high load condition such as created during a relatively hard kicking stroke used to achieve a relatively fast swimming speed.

130. (PREVIOUSLY PRESENTED) The method of Claim 113 wherein said hinging region has a compression surface portion arranged to experience a compression range of at least 1% during said deflection.

131. (PREVIOUSLY PRESENTED) The method of Claim 113 wherein said hinging region has a compression surface portion arranged to experience a compression range of at least 3% during said deflection.

132. (PREVIOUSLY PRESENTED) The method of Claim 113 wherein said hinging region has a compression surface portion arranged to experience a compression range of at least 5% during said deflection.

133. (PREVIOUSLY PRESENTED) The method of Claim 113 wherein said hinging region has a compression surface portion arranged to experience a compression range of at least 3% under a relatively high load condition such as created during a relatively hard kicking stroke used to achieve a relatively fast swimming speed.

134. (PREVIOUSLY PRESENTED) The method of Claim 113 wherein said hinging region has a compression surface portion arranged to experience a compression range of at least 5% under a relatively high load condition such as created during a relatively hard kicking stroke used to achieve a relatively fast swimming speed.

135. (PREVIOUSLY PRESENTED) The method of Claim 113 wherein said hinging region has a compression surface portion arranged to experience a compression range of at least 10% under a relatively high load condition such as created during a relatively hard kicking stroke used to achieve a relatively fast swimming speed.

136. (PREVIOUSLY PRESENTED) The method of Claim 113 wherein said hinge region is formed by at least one cutout notch region within said active portion.

137. (PREVIOUSLY PRESENTED) The method of Claim 113 wherein said hinge region is formed by a curved tension surface cutout adjacent to said tension surface and a curved compression surface cutout adjacent to said compression surface.

138. (PREVIOUSLY PRESENTED) The method of Claim 113 wherein said hinge region has a compression surface portion and said hinge region has a neutral bending surface, said hinging region is arranged to enable said neutral bending surface to shift toward said compression surface in an amount sufficient to create a significant increase in bending resistance within said flexible rib region under a relatively high load condition such as created during a relatively hard kicking stroke used to achieve a relatively high swimming speed.

139. (PREVIOUSLY PRESENTED) The method of Claim 138 wherein said relatively high load condition creates a high load deflection, said increase in bending resistance is sufficient to permit the difference between said high load deflection and said deflection to be less than said deflection.

140. (PREVIOUSLY PRESENTED) The method of Claim 138 wherein said hinging region has a compression surface having a compression surface notch-shaped cutout, said increase in bending resistance is sufficient to prevent said compression surface notch-shaped cutout from closing under said relatively high load condition.

141. (PREVIOUSLY PRESENTED) The method of Claim 113 wherein said hinging region is made with a relatively flexible thermoplastic material connected to said active portion with thermal-chemical adhesion created during a phase of an injection molding process.

142. (PREVIOUSLY PRESENTED) The method of Claim 113 wherein said hinging region is made with a relatively flexible thermoplastic material and said active portion is made with a relatively stiffer thermoplastic material, said relatively flexible thermoplastic material being connected to said relatively stiffer thermoplastic material with thermal-chemical adhesion created during a phase of an injection molding process.

143. (PREVIOUSLY PRESENTED) The method of Claim 113 wherein said active portion includes an elongated rib member, said hinging region being a region of reduced transverse rib dimension within said elongated rib member.

144. (PREVIOUSLY PRESENTED) The method of Claim 113 wherein said active portion includes an elongated rib member, said hinging region being a region of increased rib flexibility within said elongated rib member, said region of increased rib flexibility is made with a relatively elastic thermoplastic material connected to said elongated rib member with thermal-chemical adhesion created during a phase of an injection molding process.

145. (CURRENTLY AMENDED) The method of Claim 113 wherein said active portion is made with a highly elastic material arranged to permit said S-shaped wave to undulate substantially from said root portion toward said blade free end portion with a significantly strong snapping force during said inversion phase of said reciprocating kick stroke cycle ~~said active portion has a predetermined length, said active portion is arranged to have sufficient flexibility along said predetermined length to permit said active portion to form a substantially S-shaped wave along said predetermined length during an inversion portion of a reciprocating kicking stroke cycle~~.

146. (CURRENTLY AMENDED) The method of Claim 112 wherein said blade free end portion has an oscillating amplitude and said standing wave is sufficient to create an amplification in said oscillating amplitude of said blade free end portion ~~113 wherein said pivoting blade portion has a predetermined length, said pivoting blade portion is arranged to have sufficient flexibility along said predetermined length to permit said pivoting blade portion to form a substantially S-shaped wave along said predetermined length during an inversion portion of a reciprocating kicking stroke cycle~~.

147. (CURRENTLY AMENDED) The method of Claim 73 wherein said blade free end portion experiences a free end oscillation amplitude during said reciprocating kick stroke cycle, said reciprocating kick stroke cycle has a predetermined kicking stroke frequency range and said S-shaped wave has a predetermined undulating resonant frequency, said predetermined undulating resonant frequency is arranged to be sufficiently close to said predetermined kicking stroke frequency range to permit forced resonance to occur so as to create an increase in said free end oscillation amplitude ~~and said 113 wherein said active portion has a predetermined length, said active portion is arranged to have sufficient flexibility along said~~

~~predetermined length to permit said active portion to form a longitudinal standing wave along said predetermined length during repetitive small range reciprocating stroke cycles~~.

148. (CURRENTLY AMENDED) The method of Claim 147 wherein said longitudinal flexibility is arranged to permit said S-shaped wave to form under significantly low levels of kicking effort ~~said standing wave permits said free end portion to experience an amplified oscillation~~.

149. (PREVIOUSLY PRESENTED) The method of Claim 73 wherein said S-shaped wave permits said free end portion to snap back from said deflected position toward said neutral position with increased speed.

150. (PREVIOUSLY PRESENTED) The method of Claim 113 wherein said predetermined depth of scoop is not less than 7% of said predetermined transverse dimension.

151. (PREVIOUSLY PRESENTED) The method of Claim 113 wherein said predetermined depth of scoop is not less than 10% of said predetermined transverse dimension.

152. (PREVIOUSLY PRESENTED) The method of Claim 113 wherein said predetermined depth of scoop is not less than 20% of said predetermined transverse dimension.

153. (PREVIOUSLY PRESENTED) The method of Claim 113 wherein said predetermined depth of scoop is not less than 30% of said predetermined transverse dimension.

154. (PREVIOUSLY PRESENTED) The method of Claim 113 wherein said predetermined depth of scoop is not less than 40% of said predetermined transverse dimension.

155. (PREVIOUSLY PRESENTED) The method of Claim 113 wherein said flexibility of said pivoting blade portion is sufficient to permit said longitudinal midpoint of said active portion to bow between said outer side edges and form a midpoint longitudinal scoop shaped contour having a predetermined midpoint depth of scoop that is at least 5% of said

predetermined transverse dimension.

156. (PREVIOUSLY PRESENTED) The method of Claim 113 wherein said foot attachment member has a toe portion and said hinging region is adjacent to said toe portion.

157-160. (WITHDRAWN)

161. (PREVIOUSLY PRESENTED) The method of Claim 113 wherein said hinging region has a sufficiently large enough cross section to substantially prevent said hinging region from buckling excessively during said light kick deflection.

162. (PREVIOUSLY PRESENTED) The method of Claim 113 wherein said hinging region has a sufficiently large transverse dimension to substantially prevent said hinging region from buckling excessively during said light kick deflection.

163. (WITHDRAWN)

164. (PREVIOUSLY PRESENTED) The method of Claim 113 wherein said pivoting blade portion has a lee surface relative to relative motion between said pivoting blade portion and the surrounding water, and said predetermined depth of scoop is sufficient to create a reduction in turbulence along said lee surface.

165-170. (WITHDRAWN)

171. (PREVIOUSLY PRESENTED) The method of Claim 113 wherein said hinging region has a compression surface during said deflection, said hinging region having at least one notch-shaped cutout adjacent said compression surface, said compression surface being able to experience a compression range of at least 1% during said deflection, said compression surface being made with an elastic material capable of experiencing a compression surface recovery from said compression range at the end of a kicking stroke, said recovery being

sufficient to increase said snap from said deflected position back toward said neutral position at the end of a kicking stroke.

172. (PREVIOUSLY PRESENTED) The method of Claim 73 wherein said hinging region has a sufficiently large enough cross section to substantially prevent said hinging region from buckling excessively during said light kick deflection.

173. (PREVIOUSLY PRESENTED) The method of Claim 73 wherein said hinging region includes an elongated rib member having a sufficiently large enough transverse dimension to substantially prevent said elongated rib member from buckling excessively during said light kick deflection.

174. (PREVIOUSLY PRESENTED) The method of Claim 73 wherein said hinging region includes a load bearing member having a cross sectional shape selected from the group consisting of round, rounded, partial round, half round, oval, partial oval, half oval, rectangular, and multi-faceted.

175. (PREVIOUSLY PRESENTED) The method of Claim 73 wherein said pivoting blade portion has a lee surface relative to a kicking stroke and said pivoting blade portion having sufficient flexibility to bow during use to form a longitudinal scoop shaped channel having a predetermined depth of scoop, said predetermined depth of scoop being sufficient to create a reduction in turbulence adjacent to said lee surface.

176-179. (WITHDRAWN)

180. (PREVIOUSLY PRESENTED) The method of Claim 73 wherein said elastic recovery is able to create a significant reduction in lost motion at the inversion portion of a kicking stroke cycle, said reduction in lost motion being sufficient to create an increase in maximum swimming speed.

181. (PREVIOUSLY PRESENTED) A method for providing a swim fin comprising:

(a) providing a foot attachment member;

(b) providing an active portion connected to said foot attachment member and forming a substantially forward extension of said foot attachment member, said active portion having a root portion adjacent to said foot attachment member and a free end portion remote from said root portion and said foot attachment member, said active portion having a predetermined longitudinal dimension between said root portion and said free end portion, said active portion having a longitudinal midpoint between said root portion and said free end portion, said active portion having a first half portion between said root portion and said midpoint, said active portion having a three quarter position that is located midway between said midpoint and said free end portion, said active portion having sufficient longitudinal flexibility along said predetermined longitudinal dimension to permit said first half portion of said active portion to flex around a transverse axis to a deflection of at least 10 degrees, said active portion having outer side edges and a predetermined transverse dimension between said outer side edges, said active portion having a lee surface and an attacking surface relative to relative movement between said active portion and the surrounding water; and

(c) providing said active portion with sufficient transverse flexibility to bow between said outer side edges from an unbowed position at rest to a bowed position during use to form a bowed three quarter position concave scooped channel along said attacking surface at said three quarter position, said bowed three quarter position concave scooped channel having a predetermined three quarter position depth of scoop between said unbowed position and said bowed position that is at least 5% of said predetermined transverse dimension at said three quarter position, said longitudinal flexibility being sufficient along said predetermined longitudinal dimension to permit said active portion to form a substantially S-shaped wave along said predetermined longitudinal dimension during an inversion phase of a reciprocating kick stroke cycle.

182. (PREVIOUSLY PRESENTED) The method of Claim 181 wherein said foot attachment member has a toe portion, and a hinging region is disposed within said active portion

adjacent to said toe portion, said hinging region being a region of increased flexibility within said active portion.

183. (PREVIOUSLY PRESENTED) The method of Claim 181 wherein said predetermined three quarter position depth of scoop is not less than 10% of said predetermined transverse dimension.

184. (PREVIOUSLY PRESENTED) The method of Claim 181 wherein said predetermined three quarter position depth of scoop is not less than 20% of said predetermined transverse dimension.

185. (PREVIOUSLY PRESENTED) The method of Claim 181 wherein said predetermined three quarter position depth of scoop is not less than 30% of said predetermined transverse dimension.

186. (PREVIOUSLY PRESENTED) The method of Claim 181 wherein said predetermined three quarter position depth of scoop is not less than 40% of said predetermined transverse dimension.

187. (PREVIOUSLY PRESENTED) The method of Claim 181 wherein said active portion has a midpoint region located at said longitudinal midpoint, said flexibility of said active portion is sufficient to permit said midpoint region of said pivoting blade region to experience bowing between said outer side edges from a midpoint unbowed position to a midpoint bowed position to form a midpoint longitudinal scoop shaped contour having a predetermined midpoint depth of scoop that is at least 5% of said predetermined transverse dimension at said longitudinal midpoint of said active portion.

188. (PREVIOUSLY PRESENTED) The method of Claim 181 wherein said deflection is not less than 20 degrees.

189. (PREVIOUSLY PRESENTED) The method of Claim 181 wherein said deflection is not less than 30 degrees.

190. (PREVIOUSLY PRESENTED) The method of Claim 181 wherein said deflection is not less than 20 degrees during a relatively light load condition such as created during a relatively light kicking stroke used to achieve a relatively slow swimming speed, and said deflection is not substantially greater than 30 degrees during a relatively high load condition such as created during a relatively hard kicking stroke used to achieve a relatively high swimming speed.

191. (PREVIOUSLY PRESENTED) The method of Claim 181 wherein said deflection is not less than 15 degrees during relatively light load condition such as created during a relatively light kicking stroke used to achieve a relatively slow swimming speed, and said deflection is not substantially greater than 50 degrees during a relatively high load condition such as created during a relatively hard kicking stroke used to achieve a relatively high swimming speed.

192. (PREVIOUSLY PRESENTED) The method of Claim 181 wherein a stopping device is disposed within said active portion adjacent to said hinging region, said stopping device being capable of limiting said deflection within a predetermined deflection range on at least one stroke.

193. (PREVIOUSLY PRESENTED) The method of Claim 192 wherein said predetermined deflection range is between 20 degrees and 50 degrees.

194. (PREVIOUSLY PRESENTED) The method of Claim 182 wherein said region of increased flexibility is a region having a reduced cross section.

195. (PREVIOUSLY PRESENTED) The method of Claim 182 wherein said region of increased flexibility is a region of reduced transverse dimension.

196. (PREVIOUSLY PRESENTED) The method of Claim 182 wherein said region of increased flexibility is a region of reduced vertical dimension.

197. (PREVIOUSLY PRESENTED) The method of Claim 182 wherein said region of increased flexibility includes at least one vertical notch in said active portion.

198. (PREVIOUSLY PRESENTED) The method of Claim 182 wherein said region of increased flexibility includes a plurality of vertical notches in said active portion.

199. (PREVIOUSLY PRESENTED) The method of Claim 182 wherein said region of increased flexibility includes a flexible thermoplastic material connected to said active portion with thermal-chemical adhesion created during a phase of an injection molding process.

200. (PREVIOUSLY PRESENTED) The method of Claim 182 wherein said region of increased flexibility includes an elastic member having a tension surface capable of experiencing an elongation range of at least 3% during said deflection.

201. (PREVIOUSLY PRESENTED) The method of Claim 182 wherein said region of increased flexibility includes an elastic member having a tension surface capable of experiencing an elongation range of at least 5% during said deflection.

202. (PREVIOUSLY PRESENTED) The method of Claim 182 wherein said region of increased flexibility includes an elastic member having a tension surface capable of experiencing an elongation range of at least 10% during said deflection.

203. (PREVIOUSLY PRESENTED) The method of Claim 181 wherein said foot attachment member has a toe portion and said transverse axis is adjacent to said toe portion.

204. (PREVIOUSLY PRESENTED) The method of Claim 181 wherein said region of increased flexibility includes an elastic member having a tension surface capable of experiencing an elongation range of at least 3% during said deflection, said elastic member being

made with an elastic material capable of experiencing an elastic recovery from said elongation range at the end of a kicking stroke, said elastic recover sufficient to permit said active portion to snap back from said deflected position toward said neutral position.

205. (PREVIOUSLY PRESENTED) The method of Claim 204 wherein said elastic recovery is sufficient to reduce lost motion during said inversion phase.

206. (PREVIOUSLY PRESENTED) The method of Claim 181 wherein said S-shaped wave is sufficient to create a reduction in lost motion during said inversion phase portion of a reciprocating kick stroke cycle.

207. (PREVIOUSLY PRESENTED) The method of Claim 181 wherein said S-shaped wave is capable of forming a standing wave along said predetermined longitudinal dimension of said active portion during rapid repetitive kick stroke inversions.

208. (PREVIOUSLY PRESENTED) The method of Claim 181 wherein said active portion has a tension surface portion capable of experiencing an elongation range of at least 3% and said active portion having a compression surface portion capable of experiencing a compression range of at least 1% during said deflection, said deflection occurring under a relatively light load condition such as created during a relatively light kicking stroke used to achieve a relatively slow swimming speed.

209. (CURRENTLY AMENDED) A method for providing a swim fin, comprising:

(a) providing a foot attachment member having a toe region;

(b) providing a active portion connected to said foot attachment member, said active portion having outer side edges, an active portion and a lee surface relative to relative motion between said active portion and surrounding water, a root portion adjacent to said foot attachment member and a free end portion spaced from said root portion and said foot attachment member, <u>said active portion having a predetermined length between said root portion and said free end portion,</u> said active portion having a

longitudinal midpoint between said root portion and said free end portion, said active portion having a first half portion between said root portion and said midpoint, said active portion having a three quarter length position that is located midway between said midpoint and said free end portion;

(c) providing said active portion with a hinging region located adjacent to said toe region, said hinging region being capable of permitting said first half of said active portion to pivot around a transverse axis to a deflection of at least 10 degrees from a neutral position to a deflected position under a relatively light load condition such as created during a relatively light kicking stroke used to achieve a relatively slow swimming speed;

(d) providing said active portion with two elongated stiffening members connected to said active portion adjacent to said outer side edges, said active portion having sufficient transverse flexibility at said three quarter position to experience bowing between said elongated stiffening members from an unbowed position at rest to a bowed position under said relatively light load condition, said bowing sufficient to form a bowed concave scoop-shaped channel along said attacking surface at said three quarter position; and

(e) providing said hinging region with an extensible tension surface portion, said hinging region being arranged to flex around a bending radius sufficient to enable said extensible tension surface portion to experience an elongation range of at least 3% during said deflection, said active portion having sufficient longitudinal flexibility along said predetermined length to permit said active portion to form a substantially S-shaped wave along said predetermined length during an inversion phase of a reciprocating kick stroke cycle.

210. (PREVIOUSLY PRESENTED) The method of Claim 209 wherein said extensible tension surface portion is made with an elastic material capable of experiencing an elastic recovery from said elongation range, said elastic recovery being sufficient to snap said active portion back from said deflected position toward said neutral position at the end of a kicking stroke.

211. (PREVIOUSLY PRESENTED) The method of Claim 209 wherein said extensible tension surface portion is made with a relatively flexible thermoplastic material, said active portion having a stiffer portion made with a relatively stiffer thermoplastic material, said relatively flexible thermoplastic material being connected to said relatively stiffer thermoplastic material with thermal-chemical adhesion created during a phase of an injection molding process.

212. (PREVIOUSLY PRESENTED) The method of Claim 211 wherein said foot attachment member has a flexible portion made with said relatively flexible thermoplastic used for said extensible tension surface portion, said flexible portion of said foot attachment member being molded simultaneously with said extensible tension surface portion during said phase of said injection molding process.

213. (PREVIOUSLY PRESENTED) The method of Claim 209 wherein said extensible tension surface portion is made with a relatively flexible thermoplastic material, said active portion has a blade member made with a relatively stiffer thermoplastic material, said blade member having opposing surfaces, said relatively flexible thermoplastic material being molded onto at least one of said opposing surfaces of said blade member and connected to said blade member with a chemical bond created during said phase of an injection molding process.

214. (PREVIOUSLY PRESENTED) The method of Claim 209 wherein said deflection is not less than 15 degrees.

215. (PREVIOUSLY PRESENTED) The method of Claim 209 wherein said deflection is not less than 20 degrees.

216. (PREVIOUSLY PRESENTED) The method of Claim 209 wherein said deflection is between 20 degrees and 30 degrees.

217. (PREVIOUSLY PRESENTED) The method of Claim 209 wherein said deflection is not less than 20 degrees under said relatively light load condition and said deflection

is not greater than 30 degrees under a high load condition such as created during a relatively hard kicking stroke used to achieve a relatively high swimming speed.

218. (PREVIOUSLY PRESENTED) The method of Claim 209 wherein said deflection is not less than 20 degrees under said relatively light load condition and said deflection is not greater than 40 degrees under a high load condition such as created during a relatively hard kicking stroke used to achieve a relatively high swimming speed.

219. (PREVIOUSLY PRESENTED) The method of Claim 209 wherein said deflection is not less than 20 degrees under said relatively light load condition and said deflection is not substantially greater than 50 degrees under a high load condition such as created during a relatively hard kicking stroke used to achieve a relatively high swimming speed.

220. (CURRENTLY AMENDED) The method of Claim 209 wherein said longitudinal flexibility is arranged to permit said S-shaped wave to form during when relatively light kicking strokes are used during said reciprocating kick stroke cycle ~~active portion has a predetermined length between said root portion and said free end portion, said active portion having sufficient longitudinal flexibility between said root portion and said free end portion to permit said active portion to form a longitudinal S-shaped wave along said predetermined length during an inversion portion of a reciprocating kicking stroke cycle used to achieve a relatively slow swimming speed~~.

221. (PREVIOUSLY PRESENTED) The method of Claim 209 wherein said bowed concave scoop-shaped channel is sufficiently concave to significant increase the water channeling capacity of said active portion.

222. (PREVIOUSLY PRESENTED) The method of Claim 221 wherein said bowed concave scoop-shaped channel along said attacking surface form a sufficiently convex contour along said lee surface to reduce the formation of turbulence along said lee surface.

223. (PREVIOUSLY PRESENTED) The method of Claim 222 wherein said convex contour along said lee surface is able to create a reduction in pressure within the water flowing adjacent said lee surface.

224. (PREVIOUSLY PRESENTED) The method of Claim 222 wherein said convex contour along said lee surface is able to create convex curved flow conditions within the water flowing adjacent to said lee surface.

225. (PREVIOUSLY PRESENTED) The method of Claim 209 wherein said active portion has a predetermined transverse dimension between said outer side edges and said bowed concave scoop-shaped channel has a predetermined depth of scoop that is at least 5% of said predetermined transverse dimension at said three quarter position of said active portion.

226. (PREVIOUSLY PRESENTED) The method of Claim 209 wherein said active portion has a predetermined transverse dimension between said outer side edges and said bowed concave scoop-shaped channel has a predetermined depth of scoop that is at least 10% of said predetermined transverse dimension at said three quarter position of said active portion.

227. (PREVIOUSLY PRESENTED) The method of Claim 209 wherein said active portion has a predetermined transverse dimension between said outer side edges and said bowed concave scoop-shaped channel has a predetermined depth of scoop that is at least 20% of said predetermined transverse dimension at said three quarter position of said active portion.

228. (PREVIOUSLY PRESENTED) The method of Claim 209 wherein said active portion has a predetermined transverse dimension between said outer side edges and said bowed concave scoop-shaped channel has a predetermined depth of scoop that is at least 30% of said predetermined transverse dimension at said three quarter position of said active portion.

229. (PREVIOUSLY PRESENTED) The method of Claim 209 wherein said active portion has a predetermined transverse dimension between said outer side edges and said

bowed concave scoop-shaped channel has a predetermined depth of scoop that is at least 40% of said predetermined transverse dimension at said three quarter position of said active portion.

230. (PREVIOUSLY PRESENTED) The method of Claim 209 wherein said elongation range is at least 5%.

231. (PREVIOUSLY PRESENTED) The method of Claim 209 wherein said elongation range is at least 10%.

232. (PREVIOUSLY PRESENTED) The method of Claim 209 wherein said active portion has a stopping device capable of limiting said deflection to a predetermined maximum deflection.

233. (PREVIOUSLY PRESENTED) The method of Claim 232 wherein said predetermined maximum deflection range is not substantially greater than 20 degrees.

234. (PREVIOUSLY PRESENTED) The method of Claim 232 wherein said predetermined maximum deflection range is not substantially greater than 30 degrees.

235. (PREVIOUSLY PRESENTED) The method of Claim 232 wherein said predetermined maximum deflection range is not substantially greater than 50 degrees.

236. (PREVIOUSLY PRESENTED) The method of Claim 232 wherein said stopping device is created by arranging said active portion to experience a non-linear increase in bending resistance if said relatively light load condition is exceeded during use.

237. (PREVIOUSLY PRESENTED) The method of Claim 236 wherein said non-linear increase in bending resistance is created by arranging said hinging region to have a compression surface portion capable of experiencing a predetermined compression range capable of experiencing a non-linear increase in resistance to further compression when said predetermined compression range is exceeded.

238. (PREVIOUSLY PRESENTED) The method of Claim 209 wherein said transverse axis is adjacent to said toe region.

239. (PREVIOUSLY PRESENTED) The method of Claim 209 wherein said hinging region has at least one load bearing member having a sufficient transverse dimension to substantially prevent said at least one load bearing member from buckling excessively during said deflection.

240. (PREVIOUSLY PRESENTED) The method of Claim 239 wherein said at least one load bearing member is at least one elongated load bearing rib.

241. (CURRENTLY AMENDED) The method of Claim 209 ~~220~~ wherein said longitudinal S-shaped wave is sufficient to create an increased snapping motion during the inversion phase of a reciprocating kicking stroke cycle.

242. (CURRENTLY AMENDED) The method of Claim 209 ~~220~~ wherein said active portion is made with a sufficiently elastic material to permit said longitudinal S-shaped wave to create an amplified oscillation adjacent said free end portion.